

Rejections Under 35 U.S.C. § 112

Claims 1-16 were rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant respectfully submits that the claimed “adjusting”, “subtracting”, and other functional steps comprising components of the pending method claims. It is firmly believed that the adjusting a voltage level, adding voltage signals together, and subtracting one voltage signal from another are independently sufficiently well-known in the art that one skilled in the art will both understand and be capable of performing such operational elements via a variety of apparatus. As these claims are in fact method claims they need not incorporate any specific apparatus, and the claimed results are obtainable simply by operation of the functional elements of the method themselves.

Applicant further points out that the limitations of the claims themselves sufficiently describe various methods comprised of elements that may be easily understood by one skilled in the art, and believes that the elements of the claims alone sufficiently describe the invention to one skilled in the art. Nevertheless, to facilitate understanding of the invention as claimed, applicant has converted selected claims to drawings, in the form of new Figures 6, 7, and 8, and has further converted these selected claims to written text that describes the drawings. As explained in detail above, support for each amendment comes from the claims as originally filed, and no new matter has been added.

Rejections Under 35 U.S.C. § 102

Claims 1-16 were rejected under 35 U.S.C. § 102(e) as being fully anticipated by either Hua et al. (U.S. Patent No. 5,999,433) or Buono (U.S. Patent No. 5,949,222).

Anticipation under 35 U.S.C. § 102 requires the disclosure in a single prior art reference of each element of the claim under consideration (*In re Dillon* 919 F.2d 688, 16 USPQ2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991)). The Examiner has failed to show in any Office Action how either the Hsu or Buono references cited contain any specific

elements corresponding to claimed elements of the present invention. More specifically, the Examiner has failed to show that the adjusting element or module of the pending claims that indicates a voltage is at a minimum current voltage level when the current drawn is at a minimum but nonzero load current level (*see, e.g.*, claim 1).

Claims 1-16 were rejected under 35 U.S.C. §102(e) as being fully anticipated by Yang et al. (U.S. Patent No. 6,130,526).

The Examiner has also failed to show in any office action how the cited Yang contain any specific elements corresponding to claimed elements of the present invention. More specifically, the Examiner has again failed to show that the adjusting element or module of the pending claims that indicates a voltage is at a minimum current voltage level when the current drawn is at a minimum but nonzero load current level.

Because anticipation under 35 U.S.C §102 requires the disclosure in a single prior art reference of each element of the claim under consideration (*In re Dillon* 919 F.2d 688, 16 USPQ2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991)), and such anticipation has not been shown, the present claims are believed to stand in condition for allowance. Further, §102 anticipation requires that "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP § 2131. Such detail has not been shown here.

#### Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 349-9581 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 09/476,219

Filing Date: December 30, 1999

Title: NON-LINEAR ADAPTIVE VOLTAGE POSITIONING FOR DC-DC CONVERTERS

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Respectfully submitted,

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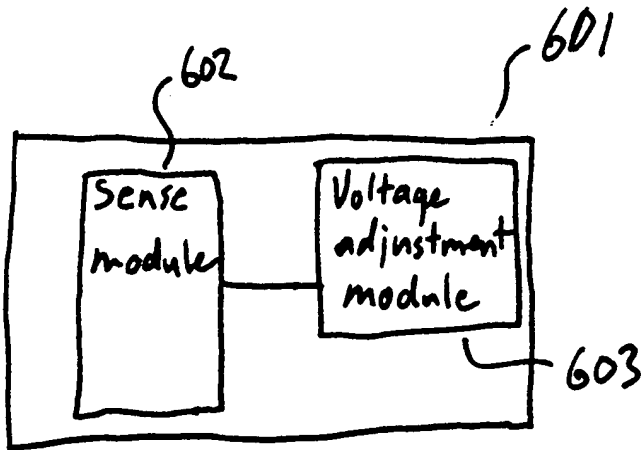
**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 30 day of November, 2001.

Jane E. Brockschink

Name

  
Signature

Fig. 6



See Jan. 9

Fig. 7

Sense current drawn from  
a DC-DC converter

~ 701

Adjust DC-DC converter-provided  
voltage such that the voltage is at a  
maximum current voltage level when the  
current drawn is at a maximum load current  
level and the voltage is at a minimum current  
voltage level when the current drawn is at a  
minimum load current level.

~ 702

Fig. 8

